

User Guide

Fusion Ultra 5G



TABLE OF CONTENTS

OVERVIEW	3
Why indoor signal can be weak.....	3
How it works.....	3
Package contents	4
Optional accessories	5
SureCall Bluetooth Installation App.....	5
Getting to know the SureCall app.....	6
Perform a soft install.....	6
Taking signal measurements with your phone.....	6
Find area outside with strongest signal with the mobile app	7
BEFORE INSTALLATION.....	8
Important. Before You Begin	8
RSRP vs RSSI signal measurements	9
Finding your closest cell tower	11
Soft install	13
Tools needed.....	13
Grounding the outside antenna	13
Power requirements.....	13
Routing cable.....	13
INSTALLATION	14
Installation overview.....	14
Components overview	15
Step 1: Install the outside antennas.....	17
Step 2: Place the base unit.....	18
Step 3: Mount the inside antennas.....	19
Step 4: Connect to power.....	20
BOOSTER TESTING AND OPTIMIZATION	21
Antenna optimization	21
TROUBLESHOOTING	21
SPECIFICATIONS	23
Three-year product warranty.....	25

If you have any questions during setup, please reach out to our US-based experienced support technicians:

Call: 1-888-365-6283 | Email: support@surecall.com | Visit: ca.surecall.com



Watch installation, optimization and troubleshooting techniques on our SureCall YouTube channel



@SureCall



Stay up to date with all things SureCall

Congratulations you have purchased the most advanced commercial booster currently available in Canada. It is designed to provide superior 5G & LTE-A support, faster data, and service continuity.

OVERVIEW

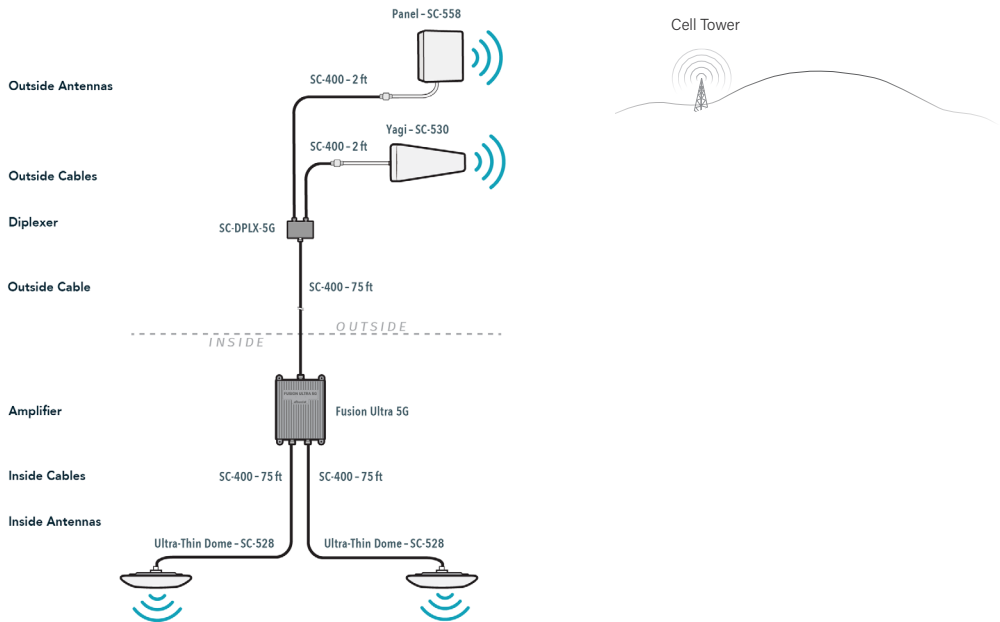
Why indoor signal can be weak

There are several reasons that can contribute to the weaker cellular reception in your building:

- Distance and obstructions (hills, buildings & foliage) between your location and the carrier's tower
- Building materials like low-E glass, metal and concrete that block the signal
- The carrier is directing your phone to connect to weaker frequency that provides them more network capacity

How it works

SureCall boosters amplify the available outside cellular signal and distribute it inside the building. To boost signal indoors, some signal must exist outside. Fusion Ultra 5G receives signal from the outside antennas, amplifies that signal and rebroadcasts it indoors via the interior antennas where it is received by cellular devices. The interior antennas also receive signals from cellular devices which is amplified and rebroadcast back to the tower.



Package contents

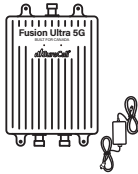
Unpack all package contents. For missing or damaged items, contact your reseller.

Turn over the signal booster and record the model and serial number for reference:

Serial #: _____

Purchase Date: _____

Model number	Outside Antenna 1	Outside Antenna 2	Outside Cable Jumper	Outside Diplexer	Outside Cable	Inside Cable	Inside Antenna
SC-FusionUltra5G-YP2U	1x Yagi (SC-530W)	1x Mid-band Panel (SC-558W)	2x 2 ft SC-400 (SC-001-2)	1x 2-Way Diplexer (SC-DPLX-5G)	1x 75 ft SC-400 (SC-001-75)	2x 75 ft SC-400 (SC-001-75)	2x Ultra-Thin Dome (SC-528W)
SC-FusionUltra5G-YP2P	1x Yagi (SC-530W)	1x Mid-band Panel (SC-558W)	2x 2 ft SC-400 (SC-001-2)	1x 2-Way Diplexer (SC-DPLX-5G)	1x 75 ft SC-400 (SC-001-75)	2x 75 ft SC-400 (SC-001-75)	2x Wall Panel (SC-548W)



Fusion Ultra 5G Amplifier with Power Supply



2 x Power cable extension cord, DC (24V), 50 ft

**Coax cable length increases RF loss, but DC power can be extended with minimal performance impact. The included extension cords allow users to place the booster closer to where coverage is needed.*



Outside Yagi Antenna (SC-530W)



Outside Mid-Band Panel (SC-558W)



2 x SC-400 Coax Cable, 2 ft, (SC-001-02)



3 x SC-400 Coax Cable, 75 ft (SC-001-75)



2-Way Diplexer (SC-DPLX-5G)



Option A: 2 x Inside Ultra-Thin Ceiling Dome Antenna (SC-528W)



Option B: 2 x Inside Wall-Mount Panel Antenna (SC-548W)

Optional accessories

Looking to upgrade your SureCall booster? Boost your signal even further with this best-selling accessory:

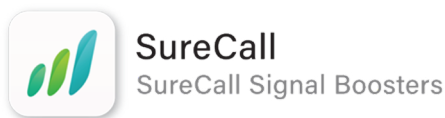
	<p>SC-LP</p>	<p>Lightning arrestor prevents damage from electrical surges</p>
---	--------------	--

SureCall Bluetooth Installation App

Use the SureCall mobile app to help with two important aspects of your Fusion Ultra 5G signal booster setup; proper aiming of the outside antenna and ensuring adequate separation between outside antenna and inside antenna(s).

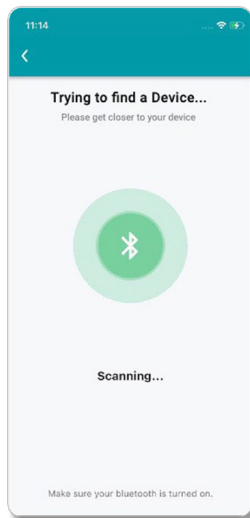
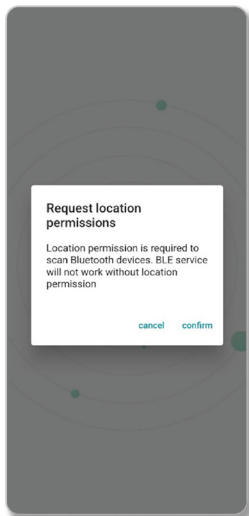
Download the SureCall app in the Google Play or Apple's App Store

Just search, "SureCall"



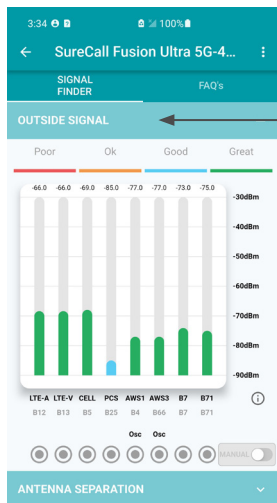
Pairing your device to Bluetooth

- Scan for your Fusion Ultra 5G device by allowing Bluetooth location permissions
- The app will display your device when the unit is in range
- Locate the found device and pair

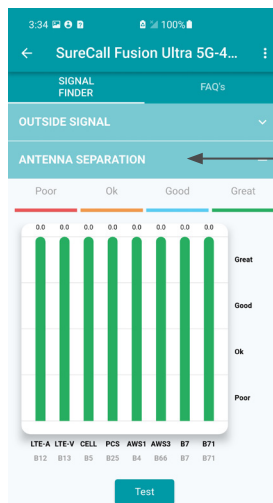


Getting to know the SureCall app

Using the app to wirelessly connect to your booster provides you with real-time feedback while positioning both components of your booster system. Once you've downloaded the app and paired it with your booster, you will need to create a 'soft install' (page 12) before utilizing the readings found in your app



When testing for the best placement and angle for your outside antenna, see "OUTSIDE SIGNAL" tab on the app.



Then get real-time feedback on your booster placement. See "ANTENNA SEPARATION" tab on the app to verify there's enough separation between the components.

Perform a soft install

Create a soft installation by positioning the components in their approximate locations. Place the outside Yagi antenna on your roof or wherever you find the best signal.

Once the main components are connected, power up and pair your device with the booster using the SureCall Easy Install Bluetooth app.

Refrain from securing your cable, drilling any holes, etc. until you complete and test the installation of the system.

Taking signal measurements with your phone

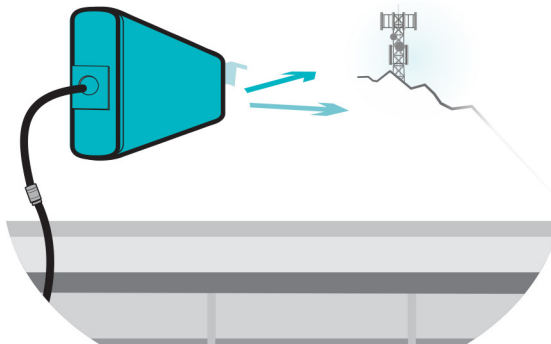
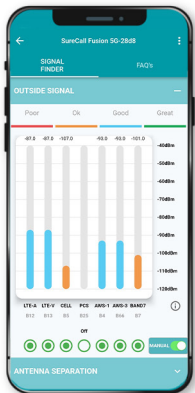
Cell phone bars are an approximation of your signal that varies by phone and carrier. Viewing measurements in decibel[1] milliwatts provides a more accurate reading. In most cases the units are reported in RSRP (LTE & 5G signals) and will generally fall between -80 dBm (strong) and -130 dBm (very weak). If you are connected over 3G or HSPA the decibels units are reported in RSSI and the units will generally fall between -50 dBm (strong) and -100 dBm (very weak).

PLEASE NOTE, To achieve optimal performance for your booster, it is vital to take care choosing antenna placement and antenna alignment. The coverage area that the booster provides is directly related to the strength of incoming signal received by the outdoor antenna. Mounting the outside antenna where the signal is the strongest provides the best results. If signal is extremely weak where the outside antenna is installed, indoor coverage will be limited. See the instructions to measure decibels on your phone.

Find area outside with strongest signal with the mobile app

Maximum performance is achieved when the antenna is aimed toward the strongest signal source. Use 'OUTSIDE SIGNAL' tab on the app to help as you locate the best outside signal while considering the following:

The best location is generally found above the roof line and as high as possible on the side of your home facing your carrier's nearest cell tower. If you know the direction of your provider's tower, point the antenna in that direction. If you're unsure, use the app while testing various antenna locations.



Outside Signal

POOR

Little to no signal detected. You'll need to adjust the placement or angle of your outside antenna.

OK

Weak signal, but good enough sign for minimal results. Move or rotate your outside antenna for better results.

GOOD

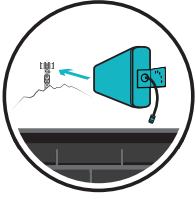
Received signal is good. You could install your outside antenna in this area.

GREAT

Received signal is very strong! Install your antenna at this location once your antenna separation measurement is confirmed

BEFORE INSTALLATION

IMPORTANT. BEFORE YOU BEGIN.

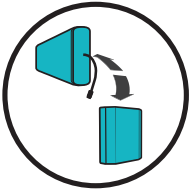


IDENTIFY THE AREA OF STRONGEST OUTSIDE SIGNAL.

Since booster performance is largely determined by the signal strength received by your outside antenna, it is important to identify the location of best signal for placement of your antenna.

The best location is generally found on the side of your home that faces your nearest cell tower and as high as possible -- where the antenna can 'see' your cell tower. Better signal received by your outside antenna means better booster performance inside. Conversely, the weaker your outside signal, the more limited your coverage will be indoors.

If you're unsure of the direction of your carrier's closest cell tower, see page 11 on Finding your closest cell tower for suggestions.



DO NOT RELY ON CELL PHONE BARS AS AN ACCURATE MEASURING TOOL

Cell phone bars are an approximation of your signal that varies by phone and carrier. Placing your phone in test mode or downloading an app that shows your signal in decibels (dB) is more accurate. For help using this feature on your device, see "Taking signal measurements with your phone" on page 7.

During planning, installation and testing, take multiple readings several minutes apart. Also, verify that you can place and hold a call.



BETTER ANTENNA SEPARATION MEANS BETTER PERFORMANCE

Maintain a distance of at least 25 vertical feet or up to 50 feet of horizontal distance, especially if sufficient vertical separation cannot be achieved. Also, make certain the antennas are aimed away from one another.

RSRP vs RSSI signal measurements

Cell phone bars are an approximation of your signal that varies by phone and carrier. Viewing measurements in decibel milliwatts provides a more accurate reading. In most cases, units are reported in RSRP (LTE & 5G signals) and will generally fall between -80 dBm (strong) and -130 dBm (very weak). If you are connected over 3G or HSPA the decibels units are reported in RSSI and the units will generally fall between -50 dBm (strong) and -100 dBm (very weak).

PLEASE NOTE, To achieve optimal performance for your booster, it is vital to take care choosing antenna placement and antenna alignment. The coverage area that the booster provides is directly related to the strength of incoming signal received by the outdoor antenna. Mounting the outside antenna where the signal is the strongest provides the best results. If signal is extremely weak where the outside antenna is installed, indoor coverage will be limited.

See the instructions below to measure decibels on your phone.

Measuring signal will be helpful to (1) identify the location outside with the strongest signal for placement of your outside antenna and (2) to measure indoor signal strength during installation and testing of your system.

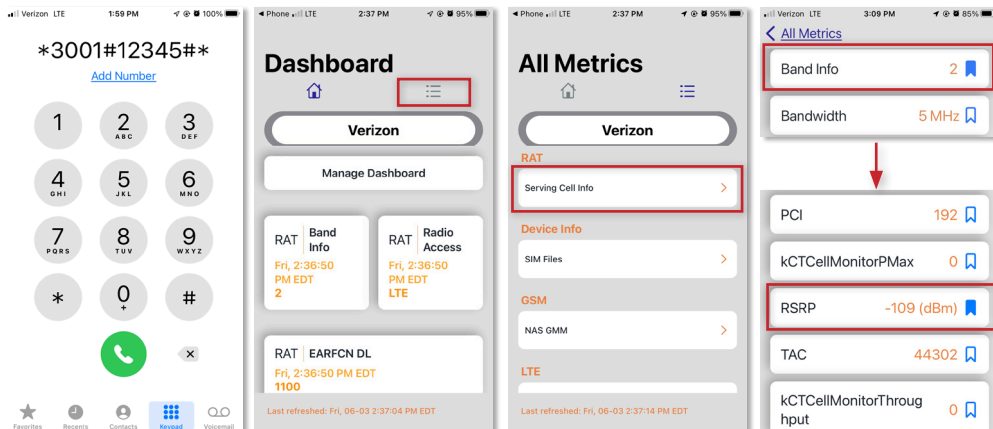
During installation and testing, always take multiple readings several minutes apart. Also, take note of the band number related to each reading for accurate comparisons.

NOTE, signal measurements are displayed alongside their measurement scale. RSRP is one scale commonly used, as is RSSI. For more information, see "Signal measurement scales" on page <DT>.

FOR IPHONE dBm signal measurements, use the methods below.

1. First turn off your Wi-Fi
2. Dial *3001#12345#* then press the call button.
3. The field test screen will appear. Once open, the menu navigation varies depending on the iOS version.
4. Navigate to "Cell Info" in the menu
5. The measurement that reads "RSRP" is your cellular signal strength in decibel-milliwatts.
6. Note Band number

If you're using an earlier version of iOS or looking for more detailed information, we have more instructions available here: www.SureCall.com/support



iPhone test mode

FOR ANDROID devices: Download the app “LTE Discovery” in the Google Play store.

1. Note band number
2. 4G LTE/5G (measurement in RSSI or RSRP)



Android app “LTE Discovery”

Signal measurement scales

The relationship between RSRP and RSSI is approximate and depends on the channel bandwidth, noise floor and channel loading. The chart below displays the approximate equivalent of all four measurements:

	Signal Power (dBm)		Signal Quality (dB)	
	RSRP Phone in LTE	RSSI Phone in HSPA	RSRQ Phone in LTE	SINR Phone in HSPA
Very Edge	-125	-102	-25	3
Average	-110	-85	-20	10
Good	-95	-70	-12	15
Best	-80	-55	-8	20

Finding your closest cell tower

Since performance is largely determined by the signal received by the outdoor antenna, it is important to know the direction in which you will aim your directional outside antenna before installation.

The best location for your outside antenna is generally found on the side facing your nearest cell tower and as high as possible -- where the antenna can 'see' your cell tower.



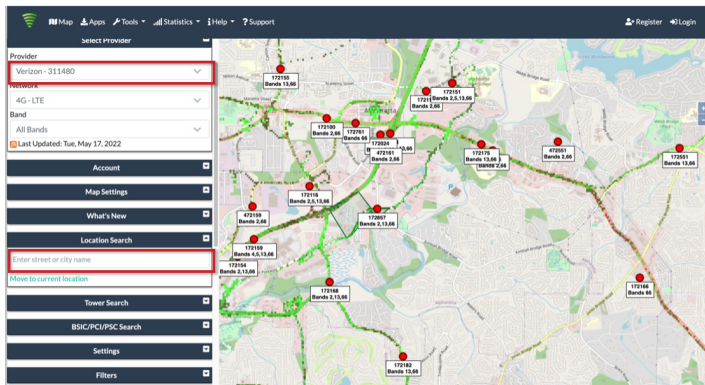
Finding your strongest outside signal

If you're not sure of the location of your nearest cell tower, there are resources available. You may utilize crowd-sourced cell tower resources such as sites like www.cellmapper.net

See below for brief instructions on utilizing cellmapper.net

Visit website www.cellmapper.net

1. Find your location on the map
2. Select your provider



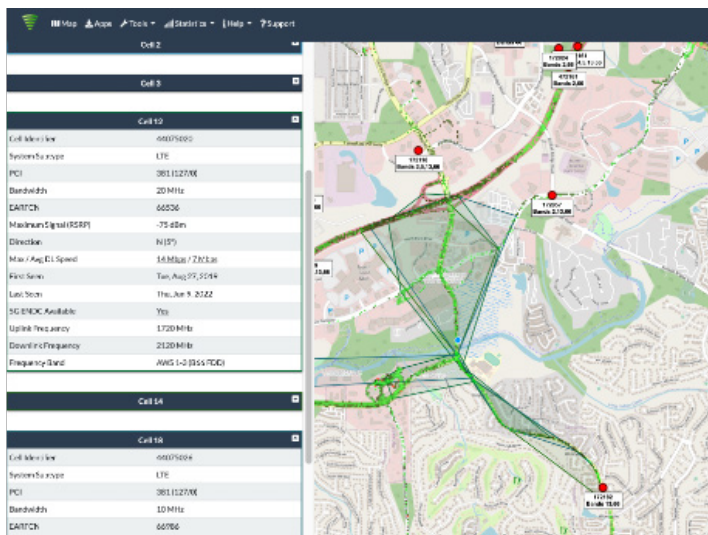
3. Find your cell tower by clicking on the red or green dots on the map closest to the building.

Once selected, detailed information of each base station is shown to the left, including the communication standards and frequency band and block.

The shaded area represents the coverage area for that base station.

4. Locate the closest base station with signal coverage facing the direction of the building and note the direction in relation to the building.

Note: While the building may or may not be located inside a shaded coverage zone indicated on the map.



Soft install

Prior to securing the location of any booster components, a "soft install" is recommended as adjustments may be needed to optimize performance.

Refrain from securing your cable, drilling any holes, etc. until you complete and test the installation of the system.

Tools needed

- Ladder
- Drill
- Poles 1.5-2.5 inches in diameter are recommended to support the outdoor equipment in case of high winds.

Grounding the outside antenna

SureCall recommends all outside antennas be properly grounded. See "Optional accessories" on page 5.

Power requirements

DO NOT use the booster with a higher or lower voltage power supply as this can damage the booster, cause personal injury, and void your warranty.

Use of a power strip with surge protection is strongly recommended.

Routing cable

SureCall recommends that cable connected to the outside antenna run straight down and away from the outside antenna, not wrapped or draped near it. When securing the cable, be sure to remove any kinks or loops.

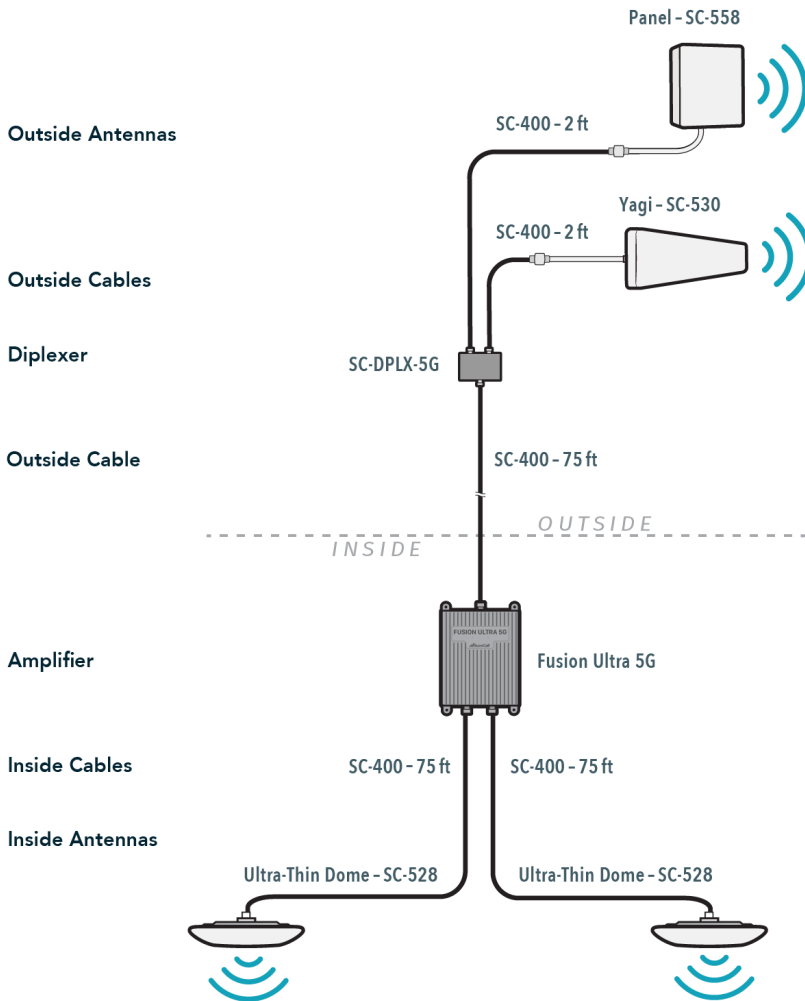
Route cable along and through a wall that leads closest to the location of the booster.

SureCall recommends that cable entering the building from an exterior wall use appropriately rated sealant/caulking at the point of entry.

Following completion of install, SureCall recommends weatherproofing the exterior coax connections with sealing tape.

INSTALLATION

Installation example



Components Overview



Outdoor Yagi Antenna	
Part Number:	SC-530W
Frequency:	617-697 / 698-960 / 1710-2700 MHz
Beamwidth:	H:90° E:60° / H:90° E:60° / H:70° E:55°
Maximum Gain:	7 / 8 / 9 dBi
VSWR:	≤2.0
Input Impedance:	50 Ω
Polarization Type:	Vertical
Max Power:	50W
Radiation Pattern:	Directional
Connector Type:	N-Female
Mount Type:	Pole or pipe
Dimensions:	17.3 x 8 x 1.45 in (43.2 x 20.3 x 3.7 cm)
Weight:	2.25 lb (1.02 kg)
Cover Material:	PC+ABS
Operating Temperature:	-22°F to +140°F (-30°C to +60°C)



Outdoor Mid-Band Panel Antenna	
Part Number:	SC-558W
Frequency:	1700-2700 MHz
Beamwidth:	H:30°±5° E:25°±5°
Maximum Gain:	15 dBi
VSWR:	<2
Input Impedance:	50 Ω
Polarization Type:	Vertical
Max Power:	50W
Radiation Pattern:	Directional
Connector Type:	N-Female
Mount Type:	Pole or pipe
Dimensions:	12 x 10 x 3.5 in (30.5 x 25.4 x 8.9 cm)
Weight:	2.9 lb (1.3 kg)
Cover Material:	UV+ABS
Operating Temperature:	-40°F to +140°F (-40°C to +60°C)



Option A: Indoor Ultra-Thin Ceiling Antenna

Part Number:	SC-528W
Frequency:	617-697 / 698-960 / 1710-2700 MHz
Beamwidth:	H:360° E:80° / H:360° E:80° / H:360° E:45°
Maximum Gain:	2 / 4 / 6 dBi
VSWR:	≤2.0
Input Impedance:	50 Ω
Polarization Type:	Vertical
Max Power:	50W
Radiation Pattern:	Omni-directional
Connector Type:	N-Female
Mount Type:	Ceiling-mounted installation
Height:	2.11 in (5.35 cm)
Diameter:	12.2 in (31 cm)
Weight:	1.21 lb (0.55 kg)
Cover Material:	PC+ABS
Operating Temperature:	-45°F to +108°F (-43°C to +43°C)



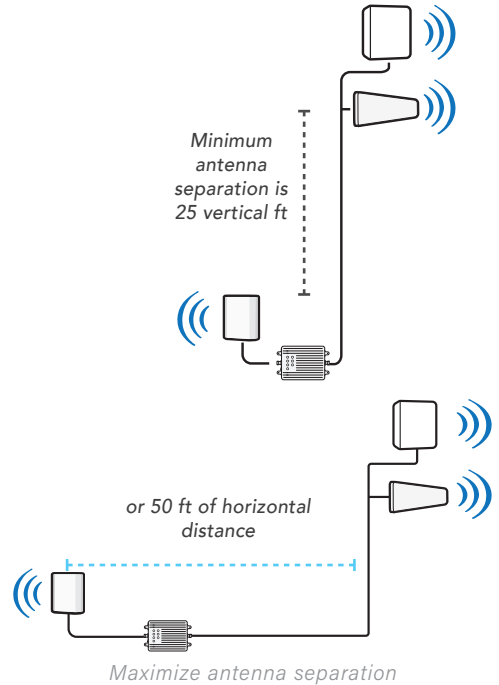
Option B: Indoor Wall-Mount Antenna

Part Number:	SC-548W
Frequency:	617-697 / 698-960 / 1710-2700 MHz
Beamwidth:	H:110° E:70° / H:90° E:80° / H:65° E:55
Maximum Gain:	5.5/6/8dBi
VSWR:	<2
Input Impedance:	50 Ω
Polarization Type:	Vertical
Max Power:	50W
Radiation Pattern:	Directional
Connector Type:	N-Female
Mount Type:	Wall-mounted Installation
Dimensions:	8.2 x 7 x 1.78 in (20.8 x 17.8 x 4.5 cm)
Weight:	2.2 lb (1 kg)
Cover Material:	ABS
Operating Temperature:	-22°F to +140°F (-30°C to +60°C)
Operating Humidity:	5% ~ 95%

Step 1: Install the outside antenna

Once you have identified the area of strongest signal, choose where you will mount your outside antenna while considering the following antenna placement guidelines.

- Mount at the highest possible location above the roofline – The mounting area must have at least a 3 ft radius clear of obstructions, other radiating elements and metal objects such as pipes or metal siding.
- Maximize antenna separation. Plan at least 25 vertical feet (or at least 50 horizontal feet) of separation between the outside and inside antennas.
- Note that the outside antennas can be mounted to an exterior surface or a 1.5-2.5" diameter pole. A 38" mounting pole is available separately (part# SC-MOUNT-JBAR-38) and is recommended to keep the two antennas 18" apart on the pole, with the panel on top and the yagi below.
- Ensure the outside antenna is oriented to face away from the inside antenna.
- Mount the outside antenna at the corner or side of the roof which faces your cell tower.
- Avoid placing / aiming the antenna towards materials (such as windows) where the signal may be reflected towards your home.

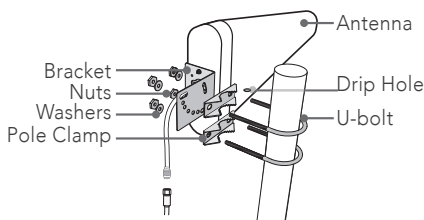


Outside antenna installation

Once you have identified your install location, assemble the u-bolt, bracket, nuts and washers onto a pole (available separately) as shown in the illustration. Orient the antenna with the drip hole at the bottom.

Do not fix mounting hardware until the optimum antenna angle is found. Loosely secure the antenna in a manner that allows for rotation during final system testing.

Once the outside antennas are secured to a pipe or pole, connect each to one of the included 2 ft SC-400 cables. Then, connect those cables to the diplexer. The yagi connects to 'OUTPUT1 Band 5/12/13' and the panel connects to 'OUTPUT2 Band 7/25/66' Next, connect the other end of the diplexer to the provided 75 ft coax cable that connects to the inside Fusion Ultra 5G amplifier.



Yagi antenna assembly



Step 2: Place the base unit

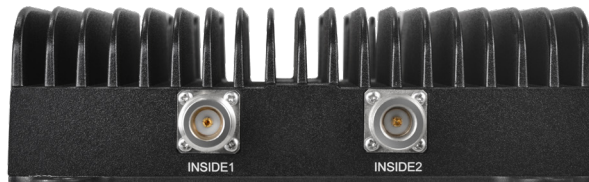
Place the base unit in your chosen location that is on a flat surface or mounted to a wall. Choose the location based on where RF signal enhancement is required. The booster needs to be within 75 ft of the two interior coverage antennas. Avoid running longer cables as this will reduce your booster's performance.

To install the booster to a wall, use the supplied mounting bracket/hardware and appropriate screws for a secure surface mount.

Your kit comes with (2) 50 ft DC extension cords so you can mount the booster near the coverage area and not the AC outlet in the corner that could be far away from the coverage area. Coax cable length increases RF loss, but DC power can be extended with minimal performance impact. The included extension cords allow you to place the booster closer to where coverage is needed.



Base Unit



NOTE: Do not power on until the system is fully connected.

NOTE: This booster should not be used near open fire or flame. Storage and transportation: Store and place in non-extreme room-temperature and dry environment.

Step 3: Mount the inside antennas



Option A: Inside Ultra-Thin antennas (x2)



Option B: Inside Wall-Mount Panel antennas (x2)



75 ft Inside Cable; SC-400 (x2)

The indoor omni-directional Ultra-thin dome antennas (Option A) or indoor directional wall-mount panels antennas (Option B) and a set of supplied of indoor cables connect directly to the base unit.

The range of the antenna is dependent on three factors:

- Physical obstructions
- Power generated by the amplifier
- Signal level received by the outdoor antenna

For omni-directional antennas:

- Optimal placement should be central to where signal is needed with minimal obstacles near the antennas.
- SureCall's Ultra-Thin dome antenna is designed to be mounted to the ceiling and broadcasts in 360°.

For directional panel antennas:

- Antennas should be mounted to a wall facing the area signal is needed. The SC-548W panel antenna broadcasts in one direction.

Choose a location for your inside antennas while considering the following general guidelines:

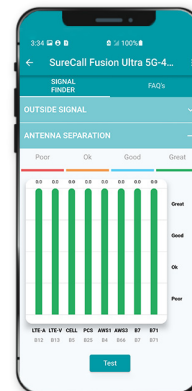
- Maximize isolation between the outside antenna and inside antennas (minimum 25 ft vertical separation or 50 ft of horizontal separation).
- The performance of your antennas is limited by building materials between the antenna and your mobile device. The antenna may be concealed behind a wall provided there are no materials that could obstruct signals.

Optimize interior antenna placement with the mobile app

Place the interior dome antennas in a central location where cellular reception is needed. When placing the antenna, note that further separation between the booster and outside antenna will increase booster performance.

Check 'ANTENNA SEPARATION' on the app. The results reflect whether adequate separation between the antennas have been achieved or when insufficient antenna separation is impacting booster coverage.

Sometimes it is not possible to get the full 25 ft of vertical separation. In this situation, try moving the inside and outside antennas around to improve separation without reducing the 'Outside Signal' levels on the app.



Ultra-Thin antenna installation

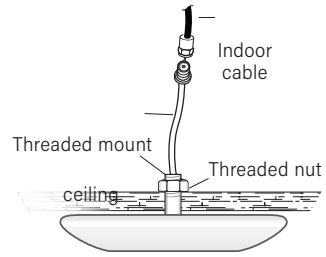
The SC-528W ultra-wideband antenna is an omni-directional interior antenna that gathers and sends signals from all directions. Besides the antenna itself, parts include mounting options for an install that is accessible by crawl space or one that is not. Optimally, It should be located central to where signal is needed with minimal obstacles.

For each antenna:

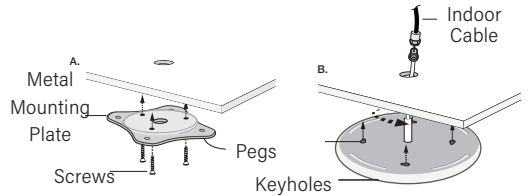
If accessible by crawl space:

1. Drill a 20 mm diameter hole in the ceiling. The size should be large enough to allow the antenna's plastic cable base to pass through.
2. Place antenna cable through hole.
3. From crawl space, screw the fixing nut onto antenna

If not accessible by crawl space, a metal bracket mount has been provided along with instructions for this mounting option.



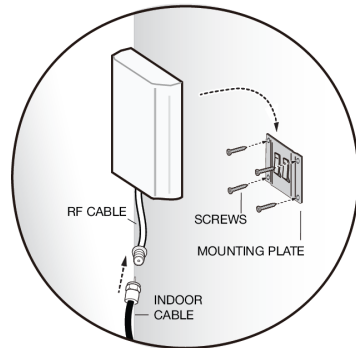
Ultra-Thin antenna installation with accessible crawl space



Ultra-Thin antenna installation without accessible crawl space

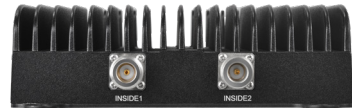
Indoor wall-mount antenna installation

1. Choose the the ideal location for mounting antenna on a vertical surface. Ideal height off the floor should match the approximate height of regular cell phone use.
2. Using plate, mark position of desired screw placement with pencil or marker.
3. Screw mounting plate into place with the slide panel protruding towards you.
4. Slide antenna securely onto mounting plate.



Cable

Connect each antenna to one of the provided 75 ft of SC-400 coax cable. Then, connect the SC-400 cables to the base unit. The cables will connect to the ports on the base unit labeled 'INSIDE 1' and 'INSIDE 2'.



Connect inside antennas to each of the (2) inside ports

Step 4: Connect to power

Connect the AC power supply to the base unit and plug into a 110V AC power outlet.

Note: If the unit does not power on, see the Troubleshooting section.

BOOSTER TESTING AND OPTIMIZATION

When your system is in place and fully connected, test system performance in locations you have previously experienced poor signal. Verify that you have a reliable connection by taking multiple readings several minutes apart. For instructions on taking measurements with your cell phone, see page 10. Also, verify that you can place and hold a call.

If the signal strength has improved, your booster is working.

Remember that coverage varies based on outdoor signal level, building construction, and antenna placement. Coverage in adjoining rooms will be reduced by walls and building materials.

Antenna optimization

The Fusion Ultra 5G automatically reduces gain (coverage performance) because of insufficient RF separation between the inside and outside antennas. Consider the options listed in this section to resolve issues with inadequate antenna isolation.

- Verify that a minimum distance of 25 vertical feet has been achieved. 50 ft or more horizontal separation may be needed, however, especially where vertical separation is not possible.
- Check for sources of interference such as cellular modems or hotspots.
- Verify antennas are not placed near a window.
- Ensure that antennas are aimed away from one another.
- Mount the outside antenna at the corner or side of the roof which faces your cell tower.
- Avoid placing / aiming the yagi antenna towards materials (such as windows) where the signal may be reflected towards the building.
- Keep in mind, identifying the setup that yields the best possible results for your environment will come from testing -- balancing the elimination of interference and while also receiving the best possible signal.

TROUBLESHOOTING

If you have any questions during setup, please contact our US-based support technicians:

Call: 1-888-365-6283 | Email: support@surecall.com | Visit: www.surecall.com/support

Problem	Resolution
Signal booster has no power	Connect the power supply to an alternate power source. Verify that the power source is not controlled by a switch that has removed power from the outlet. If it remains OFF, contact tech support at: 1-888-365-6283 or support@surecall.com
After completing installation, indoor signal coverage has not improved	Verify that cable connections are tightly fitted to the booster and antennas. Try further separating the booster and antenna. Verify that there is usable signal where the outside antenna is placed. Note: Bars are not always a reliable measure of signal. The best way to confirm signal coverage is the ability to place and hold a call.

LED Indicators

Note the following information:

- Only the presence of RED / YELLOW LED indicate the presence of an unresolved issue.
- Most issues can be resolved by addressing antenna separation/isolation. See "Antenna optimization" on page 19 for suggestions regarding antenna isolation.

'POWER' LED

During initialization, the LED will briefly flash YELLOW/RED. This is part of normal operation.

LED State	Status	Indication
Solid GREEN	Normal	Normal operation
Solid YELLOW	Alert – Oscillation detected	Automatic Gain Reduction (AGC) has detected antenna isolation (oscillation) issues causing a reduction in gain between 8- 20 dB. Antenna repositioning is needed. Verify that there is sufficient separation between the outside and inside antennas, as well as any potentially interfering objects or antennas.
Solid RED	Alert – Oscillation detected	Indicates that the booster has detected significant oscillation and has caused the booster to shut down. Antenna repositioning is necessary. Verify that there is sufficient separation between the outside and inside antennas, as well as any potentially interfering objects or antennas.

'BLUETOOTH' LED

During initialization, the LED will remain GREEN. This is part of normal operation.

LED State	Status	Indication
Solid GREEN	Normal	Normal operation
Blinking GREEN	Normal	Bluetooth is transmitting and exchanging data with paired mobile device.
No GREEN	Error	Bluetooth inside the booster is not functioning correctly. Please contact tech support.

SPECIFICATIONS

TECHNICAL SPECS	
Uplink Frequency Range (MHz):	663-698 / 698-716 / 776-787 / 824-849 / 1850-1915 / 1710-1780 / 2500-2570
Downlink Frequency Range (MHz):	617-652 / 728-746 / 746-757 / 869-894 / 1930-1995 / 2110-2180 / 2620-2690
Supported Standards:	5G, 4G LTE cellular standards
8 Cellular Bands:	71 / 12 / 13 / 5 / 25 / 4 / 66 / 7
Impedance:	50 Ω
Maximum Gain:	75 dB
Maximum Uplink Power EIRP:	30 dBm
Maximum Downlink Power EIRP (per port):	17 dBm
Number of Downlink Ports:	2
VWSR:	≤ 2.0
DC Power:	9-19V
Cable:	SC-400
RF Connectors:	N-Female (both ends)
Power Consumption:	$\leq 24W$
Operation Temperature:	-4° to +158° F (-20° to +70° C)
Dimensions:	9.7 x 6.5 x 2 inch (24.7 x 16.5 x 5.1 cm)
Weight:	5.7 lbs (2.6 kg)
Certification:	IC ID: 7784A-FULTRA5G Contains IC: 23236-PB03 and IC: 8595A-2AGQN4NNN

Note: The term "IC" before the radio certification number only signifies that Industry Canada technical specifications were met.

THIS IS A CONSUMER DEVICE

BEFORE USE, you **MUST REGISTER THIS DEVICE** with your wireless provider and have your provider's consent. Most wireless providers consent to the use of signal boosters. Some providers may not consent to the use of this device on their network. If you are unsure, contact your provider.

In Canada, **BEFORE USE** you must meet all requirements set out in ISED [CPC-2-1-05](#).

You **MUST** operate this device with approved antennas and cables as specified by the manufacturer. Antennas **MUST** be installed at least 20 cm (8 inches) from (i.e., **MUST NOT** be installed within 20 cm of) any person.

You **MUST** cease operating this device immediately if requested by the FCC (or ISED in Canada) or licensed wireless service provider.

WARNING: E911 location information may not be provided or may be inaccurate for calls served by using this device.

This device may operate in a fixed location only, for in-building use.

CAN ICES-3 (B)/NMB-3(B) (Canada) :

This Class B digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The Manufacturer's rated output power of this equipment is for single carrier operation. For situations when multiple carrier signals are present, the rating would have to be reduced by 3.5 dB, especially where the output signal is re-radiated and can cause interference to adjacent band users. This power reduction is to be by means of input power or gain reduction and not by an attenuator at the output of the device.

For details on the requirements specified in ISED CPC-2-1-05, visit: <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf08942.html>

Three-year product warranty

To activate your three-year manufacturer's warranty, register at www.SureCall.com/activate

SureCall warrants its products for three years from the date of purchase against defects in workmanship and/or materials. Specifications are subject to change. The three-year warranty only applies to products meeting the latest FCC Certification Guidelines stated on 2/20/2013 and going into effect April 30, 2014. A two-year warranty applies to any products manufactured before May 1, 2014.

Products returned by customers must be in their original, un-modified condition, shipped in the original or protective packaging with proof-of-purchase documentation enclosed, and a Return Merchandise Authorization (RMA) number printed clearly on the outside of the shipping container.

Buyers may obtain an RMA number for warranty returns by calling the SureCall Return Department toll-free at 1-888-365-6283. Any returns received by SureCall without an RMA number clearly printed on the outside of the shipping container will be returned to sender. In order to receive full credit for signal boosters, all accessories originally included in the signal booster box must be returned with the signal booster. (The Buyer does not need to include accessories sold in addition to the signal booster, such as antennas or cables.)

This warranty does not apply to any product determined by SureCall to have been subjected to misuse, abuse, neglect, or mishandling that alters or damages the product's physical or electronic properties.

SureCall warrants to the Buyer that each of its products, when shipped, will be free from defects in material and workmanship, and will perform in full accordance with applicable specifications. The limit of liability under this warranty is, at SureCall's option, to repair or replace any product or part thereof which was purchased up to THREE YEARS after May 1, 2014 or TWO YEARS for products purchased before May 1, 2014, as determined by examination by SureCall, prove defective in material and/or workmanship. Warranty returns must first be authorized in writing by SureCall. Disassembly of any SureCall product by anyone other than an authorized representative of SureCall voids this warranty in its entirety. SureCall reserves the right to make changes in any of its products without incurring any obligation to make the same changes on previously delivered products.

As a condition to the warranties provided for herein, the Buyer will prepay the shipping charges for all products returned to SureCall for repair, and SureCall will pay the return shipping with the exception of products returned from outside the United States, in which case the Buyer will pay the shipping charges.

The Buyer will pay the cost of inspecting and testing any goods returned under the warranty or otherwise, which are found to meet the applicable specifications or which are not defective or not covered by this warranty.

Products sold by SureCall shall not be considered defective or non-conforming to the Buyer's order if they satisfactorily fulfill the performance requirements that were published in the product specification literature, or in accordance with samples provided by SureCall. This warranty shall not apply to any products or parts thereof which have been subject to accident, negligence, alteration, abuse, or misuse. SureCall makes no warranty whatsoever in respect to accessories or parts not supplied by it.

Limitations of Warranty, Damages and Liability:

EXCEPT AS EXPRESSLY SET FORTH HEREIN, THERE ARE NO WARRANTIES, CONDITIONS, GUARANTEES, OR REPRESENTATIONS AS TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OTHER WARRANTIES, CONDITIONS, GUARANTEES, OR REPRESENTATIONS, WHETHER EXPRESSED OR IMPLIED, IN LAW OR IN FACT, ORAL OR IN WRITING.

SURECALL AGGREGATE LIABILITY IN DAMAGES OR OTHERWISE SHALL NOT EXCEED THE PAYMENT, IF ANY, RECEIVED BY CELLPHONE-MATE, INC. FOR THE UNIT OF PRODUCT OR SERVICE FURNISHED OR TO BE FURNISHED, AS THE CASE MAY BE, WHICH IS THE SUBJECT OF CLAIM OR DISPUTE. IN NO EVENT SHALL SURECALL BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL, OR SPECIAL DAMAGES, HOWSOEVER CAUSED.

All matters regarding this warranty shall be interpreted in accordance with the laws of the State of California, and any controversy that cannot be settled directly shall be settled by arbitration in California in accordance with the rules then prevailing of the American Arbitration Association, and judgment upon the award rendered may be entered in any court having jurisdiction thereof. If one or more provisions provided herein are held to be invalid or unenforceable under applicable law, then such provision shall be ineffective and excluded to the extent of such invalidity or unenforceability without affecting in any way the remaining provisions hereof.

SureCall has made a good faith effort to ensure the accuracy of the information in this document and disclaims the implied warranties of merchantability and fitness for a particular purpose and makes no express warranties, except as may be stated in its written agreement with and for its customers. SureCall shall not be held liable to anyone for any indirect, special or consequential damages due to omissions or errors. The information and specifications in this document are subject to change without notice.

© 2026. All Rights Reserved. All trademarks and registered trademarks are the property of their respective owners.